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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

ATTORNEY DOCKET NO. AUS920000225US1

In re Application of:

**WOLFGANG ROESNER, ET AL.**

Serial No.: **09/752,252**

Filed: **30 DECEMBER 2000**

For: **DETECTING EVENTS WITHIN  
SIMULATION MODELS**

§  
§  
§ Examiner: **UNKNOWN**  
§  
§  
§ Art Unit: **UNKNOWN**  
§  
§  
§

**PRELIMINARY AMENDMENT**

Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

Please amend the above-identified application as follows.

**CERTIFICATE OF MAILING**  
**37 CFR 1.8(a)**

I hereby certify that this correspondence is, on the date shown below, being deposited with the United States Postal Service, with sufficient postage, as First Class Mail in an envelope addressed to: Commissioner of Patents and Trademarks, Washington, D. C. 20231.

Date of Deposit: 2/21/01 By: Dena Faris  
DENA FARIS

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**IN THE CLAIMS**

Please cancel claim 1.

Please add claims 2-12 as follows.

1        2.        A method for monitoring an event within a hardware description language (HDL) model,  
2        said method comprising:

3                generating an HDL simulation model;

4                specifying an event within said HDL simulation model as an output port of an  
5        instrumentation entity;

6                delivering an event monitor request within said HDL simulation model; and

7                retrieving said event from said instrumentation entity in response to said event monitor  
8        request.

1        3.        The method of claim 2, further comprising utilizing input port map comments to generate  
2        a connection to said event from within said HDL simulation model.

1        4.        The method of claim 2, further comprising utilizing entity declaration within an HDL  
2        source code file to generate and uniquely name said event.

1 5. The method of claim 2, wherein an application program interface (API) retrieves said  
2 event from said instrumentation entity in response to said event monitor request from said  
3 simulator controller, said method further comprising uniquely naming said event within an event  
4 translation table, wherein said API retrieves said unique name from said event translation table in  
5 response to said event monitor request from said simulation controller.

1 6. The method of claim 5, further comprising constructing said event translation table from  
2 said entity declaration comments during a model build process.

1 7. A system for monitoring an event within a hardware description language (HDL) model,  
2 said system comprising:

3 a simulator that simulates said HDL model;

4 a simulator controller that delivers an event monitor request within said HDL simulation  
5 model;

6 an instrumentation entity that generates an event within said HDL model; and

7 an application program interface (API) that retrieves said event from said instrumentation  
8 entity in response to said event monitor request from said simulator controller.

9 8. The system of claim 7, wherein said simulator controller is a run time executive that calls  
an application program from said API.

1 9. The system of claim 7, wherein said instrumentation entity is produced by an HDL source  
2 code file comprising input port map comments that generate a connection to said event from  
3 within said HDL simulation model.

1 10. The system of claim 9, wherein said HDL source code file further comprises entity  
2 declaration comments that generate and uniquely name said event.

1 11. The system of claim 10, further comprising an event translation table that associates a  
2 unique name with said event, wherein said API retrieves said unique name from said event  
3 translation table in response to said event monitor request from said simulation controller.

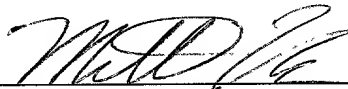
4 12. The system of claim 11, further comprising an instrumentation load tool for constructing  
5 said event translation table from said entity declaration comments during a model build process.

**REMARKS**

**Figure 8C** was included with filing of the Patent Application, as indicated in the specification. However, the figure corresponding to **Figure 8C** was originally mislabeled as **Figure 8B**. Please find attached the amended figures in which **Figures 8, 8A and 8B**, have been re-labeled as **Figures 8A, 8B and 8C**, consistent with the specification.

No additional fee is believed to be required; however, in the event any additional fees are required, please charge IBM Corporation Deposit Account No.09-0465. No extension of time is believed to be necessary. However, in the event an extension of time is required, that extension of time is hereby requested. Please charge any fee associated with an extension of time to IBM Corporation Deposit Account No.09-0465.

Respectfully submitted,



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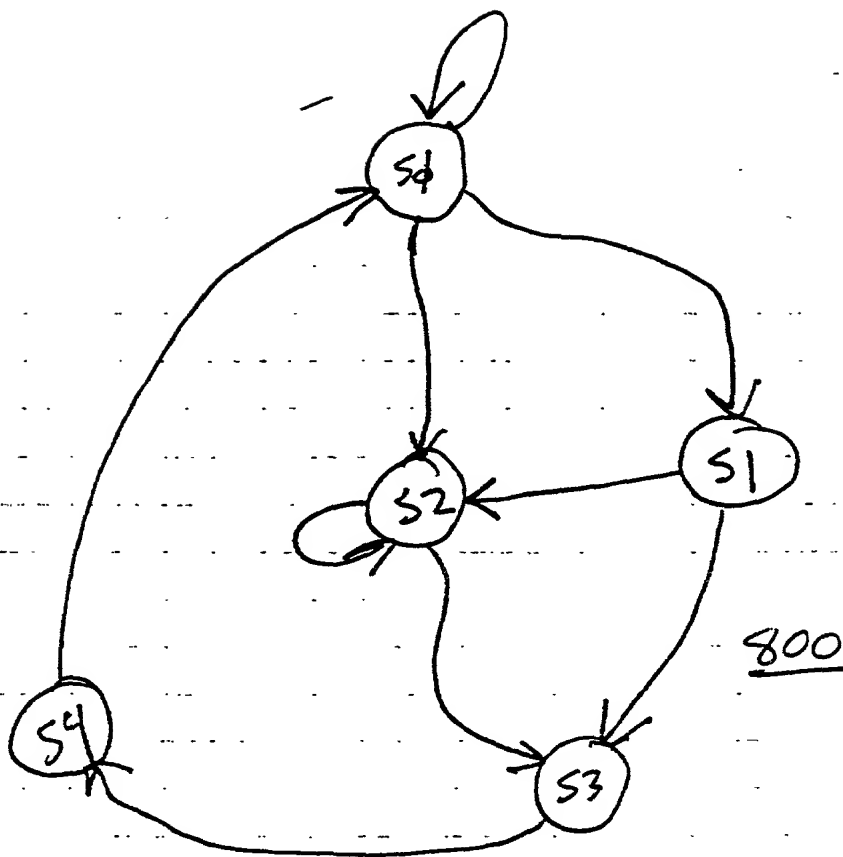


FIG. 8A (Amended)

(Prior Art)

entity Fsm: Fsm

850

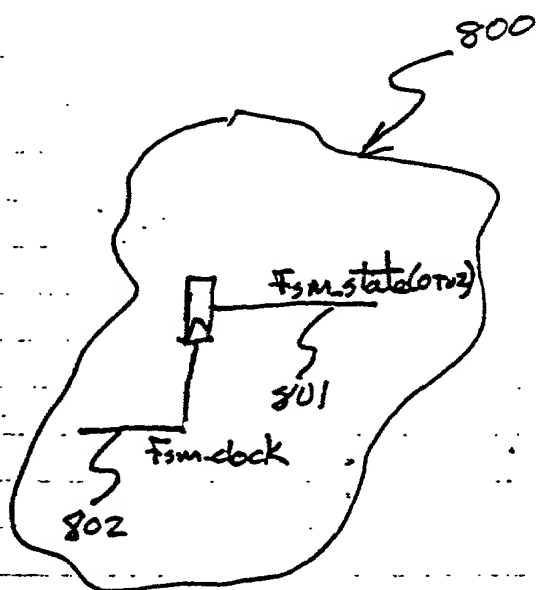


FIG. 8B (Amended)  
(Prior Art)

entity Fsm IS

PORT (  
.... ports for entity Fsm....

);

ARCHITECTURE Fsm of Fsm IS

BEGIN

.... HDL code for Fsm and rest of the entity...

fsm-state(0 to 2) <= ... signal 801....

```
853 E --!! Embedded Fsm : exampleFsm;
854 E --!! clock           : (fsm_clock);
855 E --!! state_vector    : (fsm_state(0 to 2));
856 E --!! states vector   : (s0, s1, s2, s3, s4);
857 E --!! state_encoding  : ('000', '001', '010', '011', '100');
858 E --!! arcs           : (s0 => s0, s0 => s1, s0 => s2,
                           s1 => s2, s1 => s3, s2 => s2,
                           s2 => s3, s3 => s4, s4 => s0);
859 E --!! end Fsm;
```

852

86

END;

FIG. 8C (Amended)